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Map and table showing radiometric ages of rocks in the Aleutian Islands and Alaska Peninsula

by
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This report is a compilation of radiometric ages available through January 1981 from published, unpublished, and thesis material on the Aleutian Islands and the Alaska Peninsula. The data base for the report is described in Shew and Wilson, 1981; similiar reports south-central and southeastern Alaska (Dadisman, 1980; Wilson et al, 1979). The locations of listed samples are plotted, where possible, on Plate 1, a 1:1,000,000 base from the National Atlas.

Table 1 contains sample information listed alphabetically by quadrangle. Data for each sample are listed on three lines for each age determination. The first line of each listing shows the quadrangle, latitude, longitude, sample number, rock type, dating method, whether mineral or whole-rock dated, and calculated age in m.y. The second line lists comments pertinent to the age determination or sample. The third line lists all known literature references to the age determination.

Table 2 is an explantation of abbreviations used in table 1 and on the map.

References Cited

Armstrong, R. L., Harakal, J. E., and Hollister, V. F., 1976, Age determination of late Caenozoic porphyry copper deposits of

the North American Cordillera, in Institution of Mining and Metallurgy: Applied Earth Science, Institution of Mining and Metallurgy Transactions Section B, v. 85, November 1976, p. B239-B244.

Berry, A. L., Dalrymple, G.B., Lanphere, M.A., and Von Essen, J.C., 1976, Summary of miscellaneous potassium-argon age measurements, U.S. Geological Survey, Menlo Park, California, for the years 1972-74: U.S. Geological Survey Circular 727, 13 p.

Bingham, D. K., and Stone, D. B., 1972, Palaeosecular variation of the geomagnetic field in the Aleutian Islands, Alaska: Royal Astronomical Society Geophysical Journal, v. 28, no. 4, p. 317-335.

Brockway, R., Alexander, B., Day, P., Lyle, W., Hiles, R., Decker, W., Polski, W., and Reed, B.L., 1975, Bristol Bay Region, Stratigraphic correlation section, southwest Alaska: The Alaska Geological Society, 1 sheet.

Burk, C. A., 1965, Geology of the Alaska Peninsula--island arc and continental margin: Geological Society of America Memoir 99, parts 1-3, 250 p.

Cameron, C. P., and Stone, D. B., 1970, Outline geology of the Aleutian Islands with paleomagnetic data from Shemya and Adak Islands--National Science Foundation Grant GA-1216, Science Report: College, Alaska University of Alaska, Geophysics Institute (Report) UAG R-213, 153 p.

Carr, W. J., Quinlivan, W. D., and Gard, L. M., 1970, Age and

stratigraphic relations of Amchitka, Banjo Point, and Chitka Point Formations, Amchitka Island, Aleutian Islands, Alaska, in Cohee, G. V., Bates, R. G., and Wright, W. D., eds., Changes in Stratigraphic nomenclature by the U.S. Geological Survey, 1969: U.S. Geological Survey Bulletin 1324-A, p. A16-A22.

Citron, G.P., Kay, R.W., Kay, S.M., Snee, L.W., and Sutter, J.F., 1980, Tectonic significance of early Oligocene plutonism on Adak Island, central Aleutian Islands, Alaska: Geology, v. 8, p. 375-379.

Cox, Allan, 1966, Geomagnetic secular variation in Alaska [abs.]: American Geophysical Union Transaction, v. 47, no. 1 , p. 78.

Cox, Allan, Hopkins, D. M., and Dalrymple, G. B., 1966, Geomagnetic polarity epochs--Pribilof Islands, Alaska: Geological Society of America Bulletin, v. 77, no. 9, p. 883-909.

Cox, Allan, and Dalrymple, G. B., 1967, Geomagnetic polarity epochs--Nunivak Island, Alaska: Earth and Planetary Science letters, v. 3, no. 2, p. 173-177.

Dadisman, S.V., 1980, Radiometric ages of rocks in south-central Alaska and western Yukon Territory: U.S. Geological Survey Open-file Report 80-183, 79p., 1 map, scale 1:1,000,000.

Delong, S. E., Fox, P. J., and McDowell, F. W., 1978, Subduction of the Kula Ridge at the Aleutian Trench: Geological Society of America Bulletin, v. 89, no. I, p. 83-95.

Delong, S. E., and McDowell, F. W., 1975, K-Ar ages from the Near Islands, western Aleutian Islands, Alaska; indication of a mid-Oligocene thermal event: Geology, v. 3, no. 12, p. 691-694.

Hein, J.R., and McLean, Hugh., 1979, Paleogene sedimentary and volcanogenic rocks from Adak Island, central Aleutian Islands, Alaska: Geological Survey Professional Paper 1126E, 16p.

Hoare, J. M., Condon, W. H., and Cox, Allan, and Dalrymple, G. B., 1968, Geology, paleomagnetism, and potassium-argon ages of basalts from Nunivak Island, Alaska, in Studies on volcanology--a memoir in honor of Howel Williams: Geological Society of America Memoir 116, p. 377-413.

Hopkins, D. M., and Silberman, M. L., 1978, Potassium-Argon ages of basement rocks from Saint George Island, Alaska: U.S. Geological Survey Journal of Research, v. 6, no. 4, p. 435-438.

Kienle, Juergen and Turner, D. L., 1976, The Shumagin-Kodiak batholith--a Paleocene magmatic arc?, in Short notes on Alaskan geology--1976: Alaska Division of Geological and Geophysical Surveys Geologic Report 51, p. 9-11.

Lankford, S.M., and Hill, J.M., 1979, Stratigraphy and depositional environment of the Dutch Harbor Member of the Unalaska Formation, Unalaska Island, Alaska: U.S. Geological Survey Bulletin 1457-B, 14p.

Mankinen, E.A., and Dalrymple, G.B., 1979, Revised geomagnetic

polarity time scale for the interval 0-5 m.y. B.P.: Journal of Geophysical Research, v. 84, n. B2, p. 615-626.

Marlow, M. S., Scholl, D. W., Buffington, E. C., and Alpha, T. R., 1973, Tectonic history of the central Aleutian arc: Geological Society America Bulletin, v. 84, no. 5, p. 1555-1574.

Marvin, R.F., and Dobson, S.W., 1979, Radiometric ages: Compilation B, U.S. Geological Survey: Isochron/West, n. 26.

McLean, Hugh, Engelhardt, C.L., and Howel, D.G., 1978, Reconnaissance geologic map of the Cold Bay and False Pass quadrangles, Alaska: U.S. Geological Survey Open-file Report 78-323, scale 1:250,000.

Moore, J.C., 1973, Complex deformation of Cretaceous trench deposits, southwestern Alaska: Geol. Soc. of America Bulletin, v.84, p.2005-2020.

Moore, J.C., 1974a, Geologic and structural map of part of the Outer Shumagin Islands, southwestern Alaska: U.S. Geological Survey Miscellaneous Investigations Series Map I-815, scale 1:63,360.

Moore, J.C., 1974b, Geologic and structural map of the Sanak Islands, southwestern Alaska: U.S. Geological Survey Miscellaneous Investigations Map I-817, scale 1:63,360.

Scholl, D.W., Marlow, M.S., MacLeod. N.S., and Buffington, E.C., 1976, Episodic Aleutian Ridge igneous activity: Implications of Miocene and younger submarine volcanism west of Buldir Island: Geological Society of America Bulletin, v. 87, p.

547-557.

Scholl, D.W., Marlow, M.S., and Buffington, E.C., 1973, Pliocene and Pleistocene eruptive rocks of the western Aleutian ridge -- a bleeding strike-slip plate boundary (?): Geological Society of America Abstracts with Programs, v. 5, no. 1, p. 101.

Shew, Nora, and Wilson, F.H., 1981, Radiometric age file for Alaska in Coonrad, W.L., ed., The United States Geological Survey in Alaska, Accomplishments 1980: U.S. Geological Survey Circular, in prep.

Silberman, M. L., and Hopkins, D. M., 1976, Potassium-argon ages of basement rocks from St. George Island, Alaska: U.S. Geological Survey Open-File Report 76-733, 11p.

Simpson, G.L., Vallier, T.L., Pearl, J.E., and Lee-Wong, Florence, 1979, Potassium-argon ages and geochemistry of basalt dredged near Saint George Island, southern Bering Sea: U.S. Geological Survey Circular 804-B, p. B134-B135.

von Huene, Roland, Carr, W.J., McManus, D., and Holmes, M., 1971, Marine geophysical study around Amchitka Island, western Aleutian Islands; Alaska: U.S. Geological Survey Technical Letter 22, 31p., 7 plates.

Whitmore, F. C., Jr., and Gard, L. M., Jr., 1977, Stellers's Sea Cow (Hydrodamalis gigas)of Late Pleistocene age from Amchitka, Aleutian Islands, Alaska: U.S. Geological Survey Professional Paper 1036, 19p..

Wilson, F. H., 1978, Map showing preliminary results of K-Ar

studies in the Chignik and Sutwik Island quadrangles, Alaska: U.S. Geological Survey Open-File Report 78-1064, 1 sheet, scale 1:250,000.

Wilson, F.H., 1980, Late Mesozoic and Cenozoic tectonics and the age of porphyry copper prospects, Chignik and Sutwik Island quadrangles, Alaska Peninsula: U.S. Geological Survey Open-file Report 80-543, 99p., 5 plates.

Wilson, F.H., Dadisman, S.V., and Herzon, P.L., 1979, Map showing radiometric ages of rocks in southeastern Alaska: U.S. Geological Survey Open-file Report 79-594, 33p., 1 map, scale 1:1,000,000.

Wilson, F.H., Gaum, W.C., Herzon, P.L., 1981, Map and tables showing geochronology and whole-rock geochemistry of the Chignik and Sutwik Island quadrangles, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-1053-M, 3 sheets, scale 1:250,000, in press.

Table 1. Radiometric ages of the
Aleutian Islands and Alaska Peninsula

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Adak	51 41.2N	176 41.3E	HB6-120D	DI	K	BI	34.59
Citron et al, 1980							
Adak	51 41.2N	176 41.3E	HB6-120D	DI	K	HO	31.80
Citron et al, 1980							
Adak	51 41.4N	176 38.0E	I8-1	DI	K	BI	32.19
Citron et al, 1980							
Adak	51 41.4N	176 38.0E	I8-1	DI	K	HO	35.85
Citron et al, 1980							
Adak	51 42.6N	176 37.0E	HB7-23B	GDI	K	BI	33.43
Citron et al, 1980							
Adak	51 42.9N	176 38.7E	HB6-10	GDI	K	BI	31.51
Citron et al, 1980							
Adak	51 43.1N	176 37.5E	HB5-192	DI	K	BI	32.71
Citron et al, 1980							
Adak	51 43.5N	176 47.8E	BE8-1	GDI	K	BI	32.99
Citron et al, 1980							
Adak	51 49.1N	176 26.5E	K7-32A	GDI	K	BI	13.9
Citron et al, 1980							
Adak	51 49.1N	176 26.5E	K7-32A	GDI	K	HO	12.39
Citron et al, 1980							
Adak	51 49.8N	176 24.0W	KAG1	GDI	K	BI	13.2
Kagalaska Island Marlow et al, 1973; Citron et al, 1980							
Adak	51 49.8N	176 24.0W	KAG1	GDI	K	HO	13.7
Kagalaska Island Marlow et al, 1973; Citron et al, 1980							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Adak	51 51.6N	176 37.8W	ADAK14	AND	K	HO	4.9
North Adak Island Marlow et al, 1973							
Adak	51 54.0N	177 03.0W	RDH	AND	K	WR	.0
Kanaga Island Marlow et al, 1973; Bingham and Stone, 1972							
Adak	51 54.0N	177 06.0W	ADAK12	AND	K	WR	.13
Kanaga Island Marlow et al, 1973; Bingham and Stone, 1972							
Adak	51 54.0N	177 06.0W	ADAK12	AND	K	WR	.24
Kanaga Island Marlow et al, 1973; Bingham and Stone, 1972							
Adak	51 54.0N	177 06.0W	KAN	BAS	K	WR	.18
Bingham and Stone, 1972							
Adak	51 54.6N	176 37.8W	ADAK11	ZENO	K	HO	2.4
North Adak Island Marlow et al, 1973							
Adak	51 54.6N	176 37.8W	ADAK15	AND	K	HO	5.25
North Adak Island Marlow et al, 1973							
Adak	51 55.0N	176 34.0W	ADAK4	AND	K	WR	5.
North Adak Island Cameron and Stone, 1970							
Adak	51 55.0N	176 34.0W	ADAK5	AND	K	WR	5.
North Adak Island Cameron and Stone, 1970							
Adak	51 55.0N	176 34.0W	ADAK6	AND	K	WR	5.
North Adak Island Cameron and Stone, 1970							
Adak	51 55.0N	176 34.0W	ADAK7	AND	K	WR	5.
North Adak Island Cameron and Stone, 1970							
Adak	51 55.8N	176 37.6W	802-802	AND	K	PL	14.4
andesite sill Hein and McLean, 1979							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Adak	51 55.8N	176 37.6W	ADAK10	AND	K	WR	5.1
North Adak Island Marlow et al, 1973; Cameron and Stone, 1970							
Adak	51 57.5N	176 34.0W	ADAK2	BAS	K	WR	.00
North Adak Island Cameron and Stone, 1970							
Adak	51 58.2N	176 34.2W	ADAK1	BAS	K	WR	.0
North Adak Island Marlow et al, 1973; Cameron and Stone, 1970							
Adak	51 58.2N	176 34.2W	ADAK1 REPT	BAS	K	WR	.0
North Adak Island Marlow et al, 1973							
Atka	52 22.8N	174 09.6W	ATKA1	AND	K	WR	.19
Atka Island Marlow et al, 1973; Bingham and Stone, 1972							
Atka	52 22.8N	174 09.6W	ATKA2	AND	K	WR	.24
Atka Island Marlow et al, 1973; Bingham and Stone, 1972							
Attu	52 27.6N	173 41.4E	50D4	DAC	K	BI	12.2
Porphyritic dike, McDonald Cove, Agattu Island Scholl et al, 1976							
Attu	52 27.6N	173 41.4E	50D4	DAC	K	HO	15.2
Porphyritic dike, McDonald Cove, Agattu Island Scholl et al, 1976							
Attu	52 27.6N	173 41.4E	50D4	DAC	K	PL	10.7
Porphyritic dike, McDonald Cove, Agattu Island Scholl et al, 1976							
Attu	52 27.6N	173 41.4E	50D4	DAC	K	PL	13.2
Porphyritic dike, McDonald Cove, Agattu Island Scholl et al, 1976							
Attu	52 28.2N	173 41.3E	50D4	DAC	K	WR	14.2
Agattu Island DeLong and McDowell, 1975							
Attu	52 43.2N	174 06.6E	ATTU6	DAC	K	AM	15.0
Shemya Island Marlow et al, 1973; Cameron and Stone, 1970							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Attu	52 43.8N	174 07.2E	ATTU3	BAS	K	WR	12.3
Shemya Island Marlow et al, 1973; Cameron and Stone, 1970							
Attu	52 48.1N	173 06.5E	49P53	BAS	K	WR	31.9
Attu Island DeLong and McDowell, 1975							
Attu	52 48.2N	173 09.0E	50P295	Q DI	K	WR	26.5
Attu Island DeLong and McDowell, 1975							
Attu	52 48.4N	172 56.5E	49G6	AMPH	K	WR	29.9
Attu Island DeLong and McDowell, 1975							
Attu	52 49.3N	173 10.9E	50P293	BAS	K	WR	28.9
Attu Island DeLong and McDowell, 1975							
Attu	52 49.8N	173 07.0E	50P286	AND	K	HO	8.35
Massacre Bay Formation, Lookout Hill, Attu Island; location in error in sourc Scholl et al, 1976							
Attu	52 49.8N	173 07.0E	50P286	AND	K	WR	7.4
Attu Island DeLong and McDowell, 1975							
Attu	52 50.0N	173 21.9E	49W36	DAC	K	WR	5.9
Attu Island DeLong and McDowell, 1975							
Chignik	56 00.2N	160 02.3W	78AYb90	AND	K	WR	3.53
Milky River Formation, mean of 2 determinations Wilson et al, 1981							
Chignik	56 01.1N	158 30.3W	78AWs95	Q DI	K	BI	7.86
Wilson, 1980; Wilson et al, 1981							
Chignik	56 01.1N	158 30.3W	78AWs95	Q DI	K	HO	10.08
Wilson, 1980; Wilson et al, 1981							
Chignik	56 01.4N	159 20.2W	78AWs111	LBAS	K	WR	39.1
mean of 2 determinations Wilson et al, 1981							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Chignik	56 01.7N	159 11.2W	77AWs112b	LBAS	K	WR	.48
Mean of 3 determinations Wilson, 1980; Wilson et al, 1981							
Chignik	56 04.0N	158 29.5W	77AWs100	GDI	K	BI	7.78
Mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 04.0N	158 29.5W	77AWs100	GDI	K	HO	9.86
Mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 09.7N	158 24.0W	77AWs179	GDI	K	BI	7.65
Mildly hydrothermally altered granodiorite; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 09.7N	158 24.0W	77AWs180	PEG	K	BI	7.37
Mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 09.7N	158 24.0W	77AWs96B	PEG	K	KS	6.53
Mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 11.7N	158 19.0W	77AWs122	DAC	K	HO	22.37
Minimum age, impure separate with incl. of plagioclase, mean of 2 determinati Wilson, 1980; Wilson et al, 1981							
Chignik	56 12.7N	158 19.9W	78AWs98	LBAS	K	WR	21.18
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Chignik	56 13.2N	158 23.3W	77AWs125	TON	K	BI	6.03
Mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 13.2N	158 23.3W	77AWs125	TON	K	HO	6.33
Corrected age is mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Chignik	56 13.5N	158 28.5W	77AMs001	AND	K	HO	27.1
Propylitically altered dike; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 13.6N	158 28.9W	77AWs137	Q DI	K	BI	21.3
Chloritized, altered quartz diorite-small pluton intruding volcanic pile Wilson, 1978; 1980; Wilson et al, 1981							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min. Age(my)
Chignik	56 13.8N	158 29.0W	77AWs183	OTHER	K WR	21.2
Quartz-sercite altered volcanic rock; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981						
Chignik	56 17.1N	158 35.2W	78AWs134	DAC	K WR	26.23
mean of 2 determinations Wilson, 1980; Wilson et al, 1981						
Chignik	56 18.0N	158 22.8W	77AWs176	AND	K HO	16.5
Minimum age, mean of 2 determinations determinations Wilson, 1980; Wilson et al, 1981						
Chignik	56 18.5N	158 24.5W	77AWs190b	AND	K HO	8.97
mean of 2 determinations Wilson et al, 1981						
Chignik	56 20.0N	158 30.0W	77AWs186	CG	K BI	89.8
Cobble from Chignik Formation, minimun age, mean of 2 determinations Wilson, 1980; Wilson et al, 1981						
Chignik	56 29.5N	158 48.4W	78AWs125	DAC	K HO	1.88
Corrected age is mean of 2 determinations Wilson, 1980; Wilson et al, 1981						
Chignik	56 30.0N	158 43.4W	78ADt187	DAC	K WR	1.94
mean of 2 determinations Wilson et al, 1981						
Chignik	56 30.1N	158 40.5W	78AYb57	DAC	K PL	1.80
mean of 2 determinations Wilson et al, 1981						
Chignik	56 30.4N	158 23.5W	77AWs235	OTHER	K CH	3.5
Hydrothermally altered arkose of Naknek Formation, mean of 2 determinations Wilson, 1980; Wilson et al, 1981						
Chignik	56 30.5N	158 24.1W	77AWs243	OTHER	K CH	3.92
Hydrothermally altered Naknek Formation Wilson, 1980; Wilson et al, 1981						
Chignik	56 30.5N	158 24.1W	77AWs243	OTHER	K SE	3.83
Hydrothermally altered Naknek Formation, corrected age, mean of 2 determinati Wilson, 1980; Wilson et al, 1981						
Chignik	56 30.5N	158 24.1W	77AWs243	OTHER	K WR	3.72
Hydrothermally altered Naknek Formation Wilson, 1980; Wilson et al, 1981						

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Chignik	56 30.6N	158 24.0W	77AWs215	DAC	K	HO	2.15
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Chignik	56 30.7N	158 39.9W	78AYb58	AND	K	PL	1.72
mean of 2 determinations Wilson et al, 1981							
Chignik	56 31.0N	158 23.5W	77AWs152	DAC	K	BI	3.65
Hydrothermally altered dacite; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 31.0N	158 24.0W	77AWs251	OTHER	K	BI	3.67
Altered dacite?; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Chignik	56 31.0N	158 42.0W	77ACx4	OTHER	K	WR	1.38
Hydrothermally altered volcanic rock, mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Chignik	56 32. N	158 23. W	Chignik1	OTHER	K	SE	3.4
Hydrothermal mineral; age recalculated with 1976 constants Armstrong et al, 1976; Wilson, 1980							
Chignik	56 58.0N	158 40.6W	Chignik2	UNID	K	UN	42.
Gulf 1 Port Heiden well, core 1 11,832-11858', approximate location Brockway et al, 1975; Wilson 1980							
Chignik	56 58.0N	158 40.6W	Chignik3	UNID	K	UN	36.
Gulf 1 Port Heiden well, 14,000', approximate location Brockway et al, 1975; Wilson, 1980							
False Pass	54 29.0N	162 38.4W	75089	GDI	K	BI	62.0
Approximate location, Sanak Island; age recalculated with 1976 constants Kienle and Turner, 1976; Wilson, 1980							
False Pass	54 29.0N	162 38.4W	S-70	GDI	K	BI	61.4
Sanak Pluton; age recalculated with 1976 constants; addl ref McLean et al, 19 Berry et al, 1976; Kienle and Turner, 1976; Wilson, 1980; Moore, 1973, 1974a							
Gareloi Island	51 14.6N	179 07.6W	A-A20	DIA	K	WR	29.0
Amatignak Island Delong et al, 1978							
Gareloi Island	51 17.8N	179 07.2W	A-A31	BAS	K	WR	23.7
Amatignak Is. Delong et al, 1978							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Gareloi Island	51 23.0N	178 59.8W	A-U22	BAS	K	WR	42.3
Ulak Island Delong et al, 1978							
Gareloi Island	51 23.4N	178 59.0W	A-U23	DI	K	WR	33.1
Metadiorite: Ulak Is. Delong et al, 1978							
Kiska	51 55.0N	177 22.0E	A-K14	BAS	K	WR	29.0
Kiska Island Delong et al, 1978							
Kiska	52 06.2N	177 33.0E	KISKA1	AND	K	WR	5.5
Kiska Island, approximate location von Huene et al, 1971; Marlow et al, 1973; DeLong et al, 1978							
Offshore	52 36.0N	174 48.0E	B-29-1	DAC	K	HO	1.4
Hornblende dacite dredged at 750m from west of Buldir Island Scholl et al, 1973							
Offshore	52 36.6N	174 48.6E	B-29-1	DAC	K	HO	.61
Dredge station Marlow et al, 1973; Scholl et al, 1976							
Offshore	52 36.6N	174 48.6E	B-29-1	DAC	K	HO	2.10
Dredge station Marlow et al, 1973; Scholl et al, 1976							
Offshore	55 42.0N	165 12.0E	OFFSH1	BAS	K	WR	4.6
Augite basalt dredged at 1600m Scholl et al, 1973							
Offshore	56 23.0N	169 37.5W	DR5-34	BAS	K	WR	.77
Dredge site south of St. George Is., approximate location Simpson et al, 1979							
Offshore	56 23.0N	169 37.5W	DR5-8	BAS	K	WR	.84
Dredge site south of St. George Is., approximate location Simpson et al, 1979							
Port Moller	55 03.2N	160 02.5W	405M	DI	K	MU	57.4
Shumagin batholith; age recalculated with 1976 constants Burk, 1965; Kienle and Turner, 1976; Wilson, 1980							
Port Moller	55 05.0N	160 00.0W	75092	GDI	K	BI	60.7
Approx. location Nagai Is. Kienle and Turner, 1976; Wilson, 1980							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Port Moller	55 06.8N	160 01.7W	406B	DI	K	BI	58.4
Shumagin batholith; age recalculated with 1976 constants Burk, 1965; Kienle and Turner, 1976; Wilson, 1980							
Port Moller	55 06.8N	160 01.7W	406M	DI	K	MU	65.6
Shumagin batholith; age recalculated with 1976 constants Burk, 1965; Kienle and Turner, 1976; Wilson, 1980							
Port Moller	55 37. N	160 41. W	Moller-1	Q DI	K	BI	6.2
Secondary mineral Armstrong et al, 1976							
Pribilof Islands	56 34.0N	169 29.0W	P66	BAS	K	WR	2.19
St. George Island Cox et al, 1966; Cox, 1966							
Pribilof Islands	56 34.5N	169 30.0W	G199	Q DI	K	PL	55.0
Silberman and Hopkins, 1976; Hopkins and Silberman, 1978							
Pribilof Islands	56 34.5N	169 30.0W	G199	Q DI	K	SE	49.5
Silberman and Hopkins, 1976; Hopkins and Silberman, 1978							
Pribilof Islands	56 34.5N	169 30.0W	G200	Q DI	K	AW	52.7
Silberman and Hopkins, 1976; Hopkins and Silberman, 1978							
Pribilof Islands	56 34.5N	169 30.0W	G200	Q DI	K	CH	57.2
Silberman and Hopkins, 1976; Hopkins and Silberman, 1978							
Pribilof Islands	56 34.5N	169 30.0W	ISOCHRON	Q DI	K	IC	51.7
Silberman and Hopkins, 1976; Hopkins and Silberman, 1978							
Pribilof Islands	56 35.0N	169 34.0W	P67	BAS	K	WR	2.10
St. George Island Cox et al, 1966; Cox, 1966							
Pribilof Islands	56 36.0N	169 27.0W	P12	BAS	K	WR	2.12
St. George Island Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979							
Pribilof Islands	56 36.0N	169 27.0W	P13	BAS	K	WR	2.15
St. George Island Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 35.5N	169 28.0W	P10	BAS	K	WR	2.13
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 35.5N	169 28.0W	P11	BAS	K	WR	1.80
Pribilof Islands St. George Island Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979	56 35.5N	169 28.0W	P11	BAS	K	WR	1.83
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 36.0N	169 28.0W	P15	BAS	K	WR	2.14
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 36.0N	169 28.0W	P19	BAS	K	WR	1.92
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 36.0N	169 28.0W	P20	BAS	K	WR	1.81
Pribilof Islands St. George Island Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979	56 36.0N	169 30.0W	P21	BAS	K	WR	1.64
Pribilof Islands St. George Island Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979	56 37.0N	169 33.0W	P2	BAS	K	WR	2.00
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 37.0N	169 33.0W	P3	BAS	K	WR	1.99
Pribilof Islands St. George Island Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979	56 37.0N	169 33.0W	P3	BAS	K	WR	2.01
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966	56 37.0N	169 34.0W	P5	BAS	K	WR	1.89
Pribilof Islands St. George Island Cox et al, 1966; Cox, 1966; Mankinen and Dalrymple, 1979	56 37.0N	169 34.0W	P5	BAS	K	WR	1.91

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Pribilof Islands	57 08.0N	170 17.0W	P52	BAS	K	WR	.1
St. Paul Island							
Cox et al, 1966; Cox, 1966							
Pribilof Islands	57 12.0N	170 25.0W	P38	BAS	K	WR	.33
St. Paul Island							
Cox and Dalrymple, 1967; Hoare et al, 1968; Mankinen and Dalrymple, 1979							
Pribilof Islands	57 12.0N	170 25.0W	P38	BAS	K	WR	.36
St. Paul Island							
Cox et al, 1966; Cox, 1966							
Pribilof Islands	57 13.0N	170 24.0W	P35	BAS	K	WR	.10
St. Paul Island							
Cox et al, 1966; Cox, 1966							
Pribilof Islands	57 13.0N	170 24.0W	P35	BAS	K	WR	.13
St. Paul Island							
Cox et al, 1966; Cox, 1966; Mankinen and Dalrymple, 1979							
Pribilof Islands	57 13.0N	170 24.0W	P35	BAS	K	WR	.20
St. Paul Island							
Cox et al, 1966; Cox, 1966							
Rat Islands	51 21.9N	179 20.7E	WJC87A66	AND	K	HO	2.7
Dike							
Carr et al, 1970							
Rat Islands	51 22.6N	179 22.5E	Rat1	OTHER	P	SH	.13
Steller's sea cow, South Bight, approximate location							
Whitmore and Gard, 1977							
Rat Islands	51 22.8N	179 25.2E	69AMC11	GDI	K	BI	15.8
Amchitka Island							
Marlow et al, 1973; Carr et al, 1970							
Rat Islands	51 23.4N	179 12.6E	WJC1-67	BAS	K	WR	10.2
Amchitka Island							
Marlow et al, 1973; Carr et al, 1970							
Rat Islands	51 25.6N	179 13.8E	69AMC12	AND	K	WR	8.9
Amchitka Island							
Marlow et al, 1973; Carr et al, 1970							
Rat Islands	51 28.8N	179 02.4E	69AMC17	AND	K	WR	13.2
Amchitka Island							
Marlow et al, 1973; Carr et al, 1970							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Rat Islands	51 31.2N	179 01.8E	69AMC2	AND	K	WR	14.1
Amchitka Island Marlow et al, 1973; Carr et al, 1970							
Rat Islands	51 36.0N	178 48.0E	69AMC15	AND	K	WR	12.4
Amchitka Island Marlow et al, 1973; Carr et al, 1970							
Simeonof Is.	54 55.0N	159 14.4W	62AGz7	GDI	K	BI	59.9
Light-gray, medium grained biotite granodiorite, approximate location Moore, 1974a; Marvin and Dobson, 1979; Wilson, 1980							
Stepovak Bay	55 08.9N	159 32.0W	75088	GDI	K	BI	60.2
Approximate location, Big Koniuji Island; age recalculated with 1976 constant Kienle and Turner, 1976; Wilson, 1980							
Stepovak Bay	55 57.0N	159 21.0W	77AWs102	LBAS	K	WR	40.3
mean of 2 determinations Wilson et al, 1981							
Sutwik Is.	56 02.7N	156 41.3W	75086	GDI	K	BI	59.3
Approximate location, Chowiet Island; age recalculated with 1976 constants Kienle and Turner, 1976; Wilson, 1980							
Sutwik Is.	56 19.8N	157 39.6W	77AWs134	DAC	K	HO	10.10
Hornblende plagioclase porphyry, unaltered sample; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Sutwik Is.	56 30.4N	157 43.1W	78AWs42	AND	K	HO	32.8
Corrected age which is mean of 2 determinations Wilson et al, 1981; Wilson 1980							
Sutwik Is.	56 30.4N	157 43.2W	78AWs43	OTHER	K	WR	33.9
Hydrothermally altered volcanic rock, corrected age is mean of 2 determinatic Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 30.4N	157 49.4W	78AWs58	DAC	K	WR	34.44
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 31.6N	157 11.7W	78AWs32	AND	K	WR	30.71
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 32.5N	157 20.0W	77AWs74	DAC	K	BI	34.50
Hydrothermally altered biotie dacite; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Sutwik Is.	56 33.0N	156 59.6W	78AWs31	AND	K	WR	30.33
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 36.1N	157 58.9W	78AWs61	DAC	K	WR	34.39
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 37.5N	157 34.5W	78AWs18	LBAS	K	WR	37.3
mean of 2 determinations Wilson et al, 1981							
Sutwik Is.	56 38.2N	157 27.9W	77AWs46	AND	K	HO	39.1
Propylitically altered andesite porphyry; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Sutwik Is.	56 38.2N	157 28.9W	77AWs40	LBAS	K	HO	35.0
Hornblende leuco-basalt porphyry; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Sutwik Is.	56 38.3N	157 35.5W	77AWs30	AND	K	HO	36.3
Hornblende andesite porphyry from altered zone; mean of 2 determinations Wilson, 1978; 1980; Wilson et al, 1981							
Sutwik Is.	56 38.7N	157 25.0W	78AWs17	LBAS	K	HO	34.2
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 43.0N	157 49.5W	78AWs20	DAC	K	WR	36.6
mean of 2 determinations Wilson et al, 1981							
Sutwik Is.	56 47.3N	157 11.8W	78AWs24	AND	K	HO	33.5
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 47.9N	157 13.7W	78AWs27	OTHER	K	HO	36.7
Mafic inclusion (autolith) in dacite, mean of 2 determinations Wilson et al, 1981							
Sutwik Is.	56 49.1N	157 56.3W	78AWs35	DAC	K	HO	34.47
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 51.2N	156 53.8W	77ADt19	AND	K	PL	15.33
mean of 2 determinations Wilson et al, 1981							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Sutwik Is.	56 55.0N	157 14.0W	78ADt34	AND	K	WR	.62
Yantarni Volcano, mean of 2 determinations Wilson et al, 1981							
Sutwik Is.	56 56.5N	157 57.0W	78AWs5	AND	K	PL	48.1
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Sutwik Is.	56 59.0N	157 07.5W	78AWs11	DAC	K	HO	19.25
Minimum age due to proximity to Quaternary volcano, mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Trinity Is.	56 55.0N	154 13.0W	62AMe120	Q DI	K	BI	60.8
South part Kodiak Island Marvin and Dobson, 1979							
Trinity Is.	56 55.0N	154 13.0W	62AMe120	Q DI	K	MU	61.9
South part Kodiak Island Marvin and Dobson, 1979							
Ugashik	57 00.3N	156 40.4W	77AWs9	AND	K	WR	9.25
mean of 2 determinations Wilson, 1980; Wilson et al, 1981							
Ugashik	57 26.0N	157 44.3W	Ugashik1	UNID	K	UN	33.
Great Basins 1 Ugashik well, core 1, 5364-5391' Brockway et al, 1975; Wilson, 1980							
Ugashik	57 26.0N	157 44.3W	Ugashik2	UNID	K	UN	39.
Great Basins 1 Ugashik well, core 2, 8083-8095' Brockway et al, 1975; Wilson, 1980							
Umnak	53 28.2N	168 04.8W	CCR	BAS	K	WR	.0
Umnak Island Marlow et al, 1973; Bingham and Stone, 1972							
Umnak	53 28.2N	168 04.8W	UMNAK1	BAS	K	WR	.13
Umnak Island Marlow et al, 1973; Bingham and Stone, 1972							
Umnak	53 31.8N	168 06.0W	ASH1	BAS	K	WR	1.7
Umnak Island Marlow et al, 1973; Bingham and Stone, 1972							
Umnak	53 31.8N	168 06.0W	ASH2	BAS	K	WR	2.1
Umnak Island Marlow et al, 1973; Bingham and Stone, 1972							

Table 1. Continued

Quadrangle	Latitude	Longitude	Sample No.	Rock	Meth.	Min.	Age(my)
Unalaska	53 37.8N	166 55.8W	54SN197	GDI	K	BI	3.4
Unalaska Island Marlow et al, 1973							
Unalaska	53 37.8N	166 55.8W	54SN197	GDI	K	HO	11.1
Unalaska Island DeLong and McDowell, 1975; Marlow et al, 1973; Lankford and Hill, 1979							
Unalaska	53 48.0N	166 30.0W	UNA1	GDI	K	UN	13.
Unidentified rock type, mineral, and location, Captains Bay Pluton Lankford and Hill, 1979							

TABLE 2 - ABBREVIATIONS

Rock Type

AMPH	Amphibolite	LBAS	Leuco-basalt
AND	Andesite	OTHER	Other
BAS	Basalt	PEG	Pegmatite
DAC	Dacite	Q DI	Quartz diorite
DI	Diorite	TON	Tonalite
DIA	Diabase	UNID	Unidentified
GDI	Granodiorite	ZENO	Zenolith
GR	Granite		

Mineral Phase

AM	Amphibole	MU	Muscovite
AW	Anorthoclase	PL	Plagioclase
BI	Biotite	SE	Sericite
CH	Chlorite	SH	Shell material
HO	Hornblende	WR	Whole rock
IC	Isochron	UN	Unknown
KS	Potassium feldspar		

Dating Method

K	Potassium-argon	P	Pb-U, Pb-Th, etc.